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Bruce Lehman

Commissioner of Patents and Trademarks

Pandra Morton

Attest



U. 587789A

United States Patent [19]

Lee et al.

[11] **Patent Number:** 5,587,789[45] **Date of Patent:** Dec. 24, 1996**[54] APPARATUS AND METHOD FOR CONTROLLING RECORDING AND REPRODUCTION IN DIGITAL VIDEO CASSETTE TAPE RECORDER**

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Tae S. Yang, all of Seoul, Rep. of Korea

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48, 18; H04N 5/76, 5/92, 9/79

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Primary Examiner—Thai Q. Tran

[57] ABSTRACT

An apparatus and method for controlling recording and reproduction in a video cassette tape recorder are disclosed. The apparatus is capable of, in a recording mode, separating specific data for speed-varied reproduction from compressed digital video signals, recording them on designated tracks, recording position information of the designated tracks on a control track by an index head or recording position information of recording position-synchronized blocks at the starting portions of the designated tracks recorded with the specific data, and in a speed-varied reproduction mode, controlling a capstan servo speed so as to maintain the travel of a magnetic tape at a normal speed and periodically or non-periodically accelerate or decelerate it where specific data for varied-speed have been recorded periodically or non-periodically on predetermined portions of tracks, thereby making heads travel repeatedly at the normal speed and the high speed and thereby detect continuously the specific tracks for varied-speed. A repeatability of reproduced video at a varied speed is obtained without any deterioration in picture quality, because of recording of the specific data for speed-varied reproduction and the continuous detection of the specific data in the speed-varied reproduction.

22 Claims, 10 Drawing Sheets

